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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,144	11/13/2003	Ryuji Iijima	S004-5151	8198

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EXAMINER

RAJAN, KAI

ART UNIT	PAPER NUMBER
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3736

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

ED

Office Action Summary	Application No. 10/712,144	Applicant(s) IIJIMA ET AL.	
	Examiner Kai Rajan	Art Unit 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "S1106" in Figure 10 has been used to designate both "Finishing the intermittent receiving operation" and "Changing the intermittent receiving time interval changing the sensor sampling interval." Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 6, 7, 9, 11, 15, 16, 20, 21, 22, and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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The terms “larger” and “smaller” in claims 5, 6, 7, 9, 15, 16, 20, 21, 22 are relative terms which render the claims indefinite. The terms “larger” and “smaller” are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Examiner has applied the prior art in a manner sufficient to reject the claims.

In regards to claim 11, Applicant discloses “regular repetition.” The term “regular” renders the claim indefinite, since it fails to clearly describe the operation of the receiver.

Examiner has applied the prior art in a manner sufficient to reject the claim.

In regards to claim 28, Applicant discloses the sentence fragment “transfer schedule time of the next data transfer request command.” This fragment fails to further limit the invention and renders the claim indefinite. Examiner has applied the prior art in a manner sufficient to reject the claim.

Note to Applicant: The disclosure as presented is not clearly expressed and is difficult to understand. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. The claims and specification appear to be a literal translation into English from a foreign document and have errors due to the translation. The Examiner has used his best judgment to examine the claims and apply prior art in a manner sufficient to reject the claims within what is believed to be the scope of the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 25 and 28 – 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Von Arx et al. U.S. Patent No. 6,993,393.

1. A living body information measuring system comprising
a measuring device including measuring means for measuring living body information and transmitting means for transmitting living body information data supplied from the measuring means based on the living body information (Column 1 line 65 – column 2 line 40, figure 1), and

a data collecting device for receiving the living body information data from the measuring device (Column 1 line 65 – column 2 line 40, figure 1), in which

the data collecting device transmits a data transfer request command including type of the living body information data and a first data transmission schedule time that is a schedule time for transmitting the next data of the living body information data (Column 3 lines 15 – 46).

2. The living body information measuring system according to Claim 1, wherein the measuring device cuts off power of a receiver after receiving the data transfer request command from the data collecting device (Column 3 lines 15 – 46).

3. The living body information measuring system according to Claim 2, wherein the measuring device cuts off the power of the receiver, and turns on the power of the receiver after elapse of the first data transmission schedule time (Column 3 lines 15 – 46).

4. The living body information measuring system according to Claim 3, wherein the data collecting device has a function of determining the first data transmission schedule time within the data transfer request command, based on a value of the living body information data received from the measuring device (Column 7 lines 20 – 35).

5. The living body information measuring system according to Claim 4, wherein the data collecting device has a function of setting the first data transmission schedule time within the data transfer request command at a larger value according as smaller is a difference between a medium value required from an upper limit and a lower limit previously set in a storage within the data collecting device and the value of the living body information data received from the measuring device (Column 6 line 30 – column 7 line 50).

6. The living body information measuring system according to Claim 4, wherein

the data collecting device has a function of setting the first data transmission schedule time within the data transfer request command at a larger value according as dispersion of the living body information data received from the measuring device is smaller, and

setting the first data transmission schedule time at a smaller value according as the dispersion is larger (Column 6 line 30 – column 7 line 50).

7. The living body information measuring system according to Claim 4, wherein

the data collecting device has a function of setting the first data transmission schedule time within the data transfer request command at a larger value according as a variation rate of the living body information data received from the measuring device is smaller, and

setting the first data transmission schedule time at a smaller value according as the variation rate is larger (Column 6 line 30 – column 7 line 50).

8. The living body information measuring system according to Claim 4, wherein the data collecting device has a function of determining the first data transmission schedule time within the data transfer request command, based on the time received from the measuring device (Column 8 lines 42 – 60).

9. The living body information measuring system according to Claim 4, wherein the measuring device transmits the living body information data to the data collecting device at arbitrary timing when the living body information measured by the measuring device is larger

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than a predetermined upper limit previously set in the storage within the measuring device or smaller than a lower limit (Column 6 line 30 – column 7 line 50).

10. The living body information measuring system according to Claim 3, wherein
when the measuring device does not receive any data transfer request command from the data collecting device for a predetermined period of time,
the measuring device includes operation change judging means for extending measuring sampling intervals for measuring the living body information, and
storing means for storing into the storage the living body information during a period of receiving none of the data transfer request command from the data collecting device (Column 4 lines 29 – 56, column 6 lines 42 – 56, column 12 line 57 – column 13 line 6).

11. The living body information measuring system according to Claim 3, wherein when the measuring device does not receive the data transfer request command from the data collecting device for a predetermined period of time, the measuring device performs an intermittent receiving operation that is regular repetition of power on/off of the receiver (Column 6 lines 16 – 29).

12. The living body information measuring system according to Claim 11, wherein
when the measuring device receives a data transfer request command from the data collecting device during the intermittent receiving operation,
the measuring device changes the receiver to a continuous receiving operation,

performs a judgment for turning the measuring sampling intervals of the living body information measuring means to an ordinary state, and

transmits the data stored in the storage together with the latest living body information to the data collecting device (Column 6 lines 16 – 29).

13. The living body information measuring system according to Claim 11, wherein the measuring device determines receiving intervals of the intermittent receiving period and the sampling intervals of the living body information sensor, based on the living body information measured by a living body information sensor within the measuring device, during the intermittent receiving operation (Column 6 line 30 – column 7 line 50).

14. The living body information measuring system according to Claim 13, wherein according as the living body information measured by the living body information sensor approaches the predetermined upper limit or lower limit,

the measuring device sets the intermittent receiving time intervals and the sampling intervals at shorter periods than reference values of the intermittent receiving time, and

according as the living body information approaches the medium value of the upper limit and the lower limit, the measuring device sets the above intervals close to the reference values at the intermittent receiving time (Column 6 line 30 – column 7 line 50).

15. The living body measuring system according to Claim 13, wherein

according as the dispersion of the living body information measured by the living body information sensor is larger,

the measuring device sets the intermittent receiving time intervals and the sampling intervals of the living body sensor at shorter periods than the predetermined reference values at the intermittent receiving time, and

according as the dispersion of the living body information data is smaller, the measuring device sets the above intervals close to the reference values at the intermittent receiving time (Column 6 line 30 – column 7 line 50).

16. The living body measuring system according to Claim 13, wherein

according as the variation rate of the living body information measured by the living body information sensor is larger, the measuring device sets the intermittent receiving time intervals and the sampling intervals of the sensor at shorter periods than the predetermined reference values at the intermittent receiving time, and

according as the variation rate of the living body information data is smaller, the measuring device sets the above intervals close to the reference values at the intermittent receiving time (Column 6 line 30 – column 7 line 50).

17. The living body information measuring system according to Claim 13, wherein the measuring device determines the intermittent receiving time intervals and the sampling intervals of the sensor based on the sampling time by the living body information sensor (Column 6 line 30 – column 7 line 50).

18. The living body information measuring system according to Claim 3, wherein the measuring device includes a second data transmission schedule time determined by the measuring device in response data to the data transfer request command (Column 3 lines 15 – 46).

19. The living body information measuring system according to Claim 18, wherein the data collecting device determines the data transmission schedule time based on the second data transmission schedule time and the measurement data transmitted from the measuring device (Column 6 line 30 – column 7 line 50).

20. The living body information measuring system according to Claim 19, wherein the measuring device has a function of setting the second data transmission schedule time of the response data at a larger value according as smaller is a difference between the measurement data and the medium value obtained from the upper limit and the lower limit previously set in the storage within the measuring device, and

setting the second data transmission schedule time at a smaller value according as the difference is larger (Column 6 line 30 – column 7 line 50).

21. The living body information measuring system according to Claim 19, wherein the measuring device has a function of setting the second data transmission schedule time at a larger value according as the dispersion of the measurement data is smaller, and

setting the second data transmission schedule time at a smaller value according as the dispersion is larger (Column 6 line 30 – column 7 line 50).

22. The living body information measuring system according to Claim 19, wherein the measuring device has a function of setting the second data transmission schedule time at a larger value according as the variation rate of the measurement data is smaller, and setting the second data transmission schedule time at a smaller value according as the variation rate is larger (Column 6 line 30 – column 7 line 50).

23. The living body information system according to Claim 19, wherein the measuring device has a function of determining the second data transmission schedule time based on a time of measuring the measurement data (Column 6 line 30 – column 7 line 50).

24. The living body information measuring system according to Claim 19, wherein the data collecting device transmits the second data transmission schedule time received from the measuring device together with the data transmission schedule time, to the measuring device (Column 6 line 30 – column 7 line 50).

25. The living body information measuring system according to Claim 3, wherein the living body information measuring sensor of the measuring device detects a pulse (Column 4 lines 29 – 56).

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28. The living body information measuring system according to Claim 3, wherein the data collecting device is connected by one and more external lines (Column 13 line 54 – column 14 line 12).

transfer schedule time of the next data transfer request command (Column 3 lines 15 – 46)

29. A command transmission method of the data collecting device, characterized by comprising

a step of calculating the first data transmission schedule time to the measuring device (Column 3 lines 15 – 46),

a step of including a value of the first data transmission schedule time in the data transfer request command (Column 3 lines 15 – 46), and

a step of transmitting a data transfer request command (Column 3 lines 15 – 46).

30. A controlling method of the measuring device, characterized by comprising

a step of receiving the data transfer request command transmitted from the data collecting device (Column 3 lines 15 – 46),

a step of transmitting the requested measurement data (Column 3 lines 15 – 46), and

a step of cutting off power of the receiver, until the first data transmission schedule time of the data transfer request command, after transmission of the living body information data (Column 3 lines 15 – 46).

31. The data collecting device, characterized by comprising
calculating means for calculating the first data transmission schedule time to the
measuring device (Column 1 line 65 – column 2 line 40, figure 1), and
command creating means for including the value of the first data transmission schedule
time in the data transfer request command (Column 3 lines 15 – 46).

32. A measuring device, characterized by
a receiver for receiving the data transfer request command transmitted from the data
collecting device (Figure 1 item 120A),
a transmitter for transmitting the requested measurement data (Figure 1 item 110A), and
a power on/off circuit for cutting off the power of the receiver until the first data
transmission schedule time of the data transfer request command (Column 3 lines 15 – 46).

33. A measuring device, characterized by comprising
transmission schedule time calculating means for calculating the second data
transmission schedule time (Column 6 line 30 – column 7 line 50),
living body information data creating means for including the value of the second data
transmission schedule time in the living body information data (Column 6 line 30 – column 7
line 50), and
controlling means for cutting off power of a transmitter/receiver, until the first data
transmission schedule time, after transmission of the living body information data (Column 3
lines 15 – 46, column 6 line 30 – column 7 line 50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Von Arx et al. U.S. Patent No. 6,993,393 in view of Doron et al. U.S. Patent No. 6,486,588.

In regards to claim 26, Von Arx et al. discloses measuring electrical activity of the heart (Von Arx et al. column 2 lines 41 – 57). Von Arx et al. fails to disclose detecting acceleration of movement. However, Doron et al. a reference in an analogous art teaches the use of an acceleration sensor (Doron et al. column 5 lines 1 – 17). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the cardiac electrical sensors of Von Arx et al. with the acceleration sensor of Doron et al., since Doron et al. states that sensors are interchangeable depending on the implementation of the device and the needs of the patient (Doron et al. column 5 lines 1 – 4).

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Von Arx et al. U.S. Patent No. 6,993,393 in view of Brown U.S. Patent No. 5,997,476.

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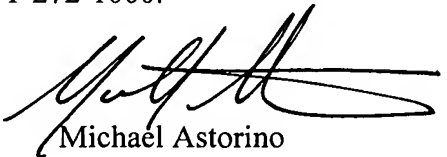
In regards to claim 26, Von Arx et al. discloses measuring electrical activity of the heart (Von Arx et al. column 2 lines 41 – 57). Von Arx et al. fails to disclose detecting a breathing rate. However, Brown a reference in an analogous art teaches the use of a respiratory flow meter (Brown column 5 lines 1 – 13). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the cardiac electrical sensors of Von Arx et al. with the respiratory flow meter of Brown, since Brown states that sensors are interchangeable depending on the patient's disease (Brown column 5 lines 1 – 13).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kai Rajan whose telephone number is 571-272-3077. The examiner can normally be reached on Monday-Friday 9:00AM to 4:00PM.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kai Rajan
July 7, 2007



Michael Astorino